

Evolution of transdisciplinary regionology and regional specificity of knowledge management

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Abstract. The article covers the process of evolution of regionological knowledge in its relation to knowledge management. The authors suggest distinguishing three large periods of the development of regionology: the period of proto-regionological knowledge, the period of systematic regionological knowledge and the period of institutionalized regionological knowledge. Each of the stages has its own approaches to knowledge management, and these approaches, in turn, are defined by well marked regional specificity. The authors consider the cases of Russia, European countries, Japan, China and others and conceptualize experience of knowledge management in the frameworks of regionology schools, fields and disciplines such as Area Studies, Regional Studies, Regional Science, World Complex Regional Studies. The authors of the article analyze the identity crisis of the regionological knowledge system and the place of regionological knowledge among other research areas, and define different approaches to this process: positioning regionological knowledge as a subdiscipline, as an interdisciplinary field, and as an independent discipline. The article establishes two bases for defining regional specificity of knowledge management: at an earlier stage – in the period of proto-regionological knowledge – on the basis of the difference in civilization between the East and the West, at later stages – on the basis of the firmness of the system of knowledge management on the part of the state structures. The authors of the article point out to the important role of the transdisciplinarization of regionological knowledge because the integration of different schools, research fields and subdisciplines into a common transdisciplinary field will improve opportunities for efficient knowledge management.

1 Introduction

The evolution of transdisciplinary regionology in a broad sense is a long historical process resulting in the formation of the common world system of modern transdisciplinary regionology.

We define transdisciplinary regionology as a science of an integrative kind, which studies economic-geographic, cultural-historical, socio-political, linguistic and other specificity of regions, discovers laws of regional development and interregional interaction, and is grounded on a complex theoretical and methodological basis developed in the regions – objects of study. In modern science, there are two interrelated processes: transdisciplinarization of regionology as an objective process, which is a reaction to the inner crisis of regionological knowledge, and deliberate promotion of the concept of transdisciplinarity by different schools, whose effort is crucial for the consolidation of this promising paradigm. The demand for transdisciplinary regionology is obvious: critical comprehension of regional processes and their specificity is one of the primary goals in the globalizing world [1].

Applying the principle of continuity and taking into account the specificity of the territories which formed their regionological knowledge, we suggest regarding the evolution of the knowledge as a combination of three relatively long stages, the beginnings and endings of which will vary in different countries and regions:

- 1) the period of proto-regionological knowledge (before the start of forming of scientific disciplines);
- 2) the period of systematic regionological knowledge (studying regions in the frameworks of other disciplines before region science gained an independent status);
- 3) the period of institutionalized regionological knowledge (since the time of consolidation of the independent status of region science in its various manifestations).

The formation and implementation of regionological knowledge at each stage is linked to another important trend – attempting to find the ways of efficient knowledge management. Knowledge management is basically the process of collection, distribution and efficient use of knowledge [2]. Despite the fact that the term has appeared relatively recently, the phenomenon

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itself – the attempts to arrange the process of production and use of knowledge – has existed since the time when the social groups that had the widest resource of social management realized the importance of the process.

We will now consider the relation between regionological knowledge and knowledge management tools in each of the periods described above.

2 Three periods of regionological knowledge evolution

2.1. The period of proto-regionological knowledge

This period implies existence of knowledge of regions long before the beginning of its accumulation in the frameworks of established disciplines. In Europe, this period lasted until the end of the XVI – beginning of the XVII century, and in Russia it lasted till the beginning of XVIII century. Russian regionological knowledge of this period is related to such sources as facts and data in Russian chronicles; Greek and South Slavic books; pilgrimages as a genre of proto-regionological knowledge; area descriptions compiled in the process of expansion to Siberia, Russian Far East and East Asia; censuses and maps, etc. In this period knowledge management was at a rudimentary stage, but it already manifested in at least two lines. The first and most important one is the writing of chronicles that created a representation of the regional space. The writers of chronicles selected events, data and thoughts worth documenting and consciously constructed events important for the society. The texts of chronicles construct diplomatic, trade and cultural relations. The second important line – exploration of and expansion to Siberia, Russian Far East, East Asia – determined the practical orientation of knowledge of regions for a long time ahead. The goals of the expeditions were double: firstly, they targeted the government of the territories: the colonization, expansion, taming, and construction, establishing trade and political relations, governmental regulation issues; secondly, they aimed at the exploration and scientific discovery. The practical orientation and the integration of regional exploration with region management issues persisted in the centuries to come setting the vectors for region knowledge management in Russia.

In East Asian countries, this stage is associated with the so-called traditional science, i.e. the aggregate of scientific knowledge accumulated before Western positivist knowledge penetrated the countries. In particular, in Japan that period lasted up to the middle of XIX century.

Knowledge management that was emerging at that time in Japan depended on several factors. The first one is the opposition “We – Others” that manifested at different levels. In the time of making and expansion of the state the center (the cradle of civilization, the descendants of supreme deities) was opposed to the periphery – internal (outlying, poorly cultivated provinces, the followers of local cults) and external

(barbarians that did not belong to the well-ordered world). In the period when the borders of the controlled territories stabilized but the country turned out to be divided into virtually independent principalities, everyone outside the principality was “Other”. Upon meeting representatives of Western countries, the latter became ultimate “Others”. The identification of the conception “We” was carried out using historiographic and geographic methods, namely, chronicles compilation and descriptions of the areas of the country.

Another factor was Japan-centrism that formed knowledge management in the period described in the framework of the following trend. Not only was the study of foreign countries underdeveloped, but the very purpose of it was not to get to know the outside world but to assert the supremacy of Japan from the point of view of the geographical position, national character and cultural peculiarities to build up the country by borrowing scientific achievements from European countries.

Finally, a crucial factor in knowledge management was the cultural confrontation of three traditional scientific branches: Chinese studies (the borrowing of Chinese knowledge), Dutch studies (studying Europe primarily through the contacts with the Dutch), and the school of national sciences (study and popularization of Japanese traditional schools and teachings) [3].

Common for this period in different regions was the indivisibility, complexity of knowledge, and, to a great extent, it determined the further development of regionology that persisted without being restricted by the strict frames of a certain discipline.

2.2 The period of systematic regionological knowledge

This period allowed gathering, systemizing and analysing knowledge on regions in the frameworks of certain disciplines: at the initial stage – in the frameworks of history and geography, at the following stages – in the frameworks of interdisciplinary branches. The XVIII century brought about significant changes in the processes of knowledge management in Russia: the traits and trends of Modern Times fully expressed themselves at that point. The attitude to science in general changed, and the Academy of Sciences was founded. In Russia in that period at the pre-Soviet stage (XVIII–XIX centuries) domestic area studies were actively developing in the framework of descriptive geography, and the branches of knowledge on foreign areas, in particular, Oriental and Chinese studies, were being formed. In Soviet times, a number of mono-regional disciplines continued to develop. Besides, approaches to studying regions were being formed, in particular, in the frameworks of Economic Geography, Soviet Economic Regions School, Economic-Geographic Area Studies and Complex Problem Area Studies. At the same time, certain research directions of regionological character were actively developing that by the time had formed as independent research lines (a prime example is Oriental studies). Knowledge

management in Russia in that period was in the government's hands: most important were the issues of economic regional development and the study of the specificity of foreign areas was under the influence of political and ideological factors.

In the West, simultaneously with Region Studies in Russia, Area Studies emerged as a precursor science of regions in the form of multidisciplinary field.

European regionological paradigms of this period are presented by geographic determinism-possibilism and horological conception. In the framework of the geographic determinism-possibilism (from the XIX to mid XX century), a region is viewed as something given and a resource, and the basic concepts are «territory» and «human». In the framework of the horological paradigm (the first half of the XX century), region is considered an organized entity or a structure, and the basic concepts of the paradigm are the architecture of connections in the space and the organization of physical and mental space. These two paradigms formed further (modern) conceptions of region research.

For many countries of East Asia, the period of systematic regionological knowledge was crucial, although it started much later. China and Japan, for instance, have fully upgraded their understanding of scientific knowledge, approaches and methods since the middle (end) of the XIX century. In particular, Japan is quite an interesting example of the evolution of approaches to knowledge management: the spread of regionological knowledge about other countries as a stimulus to the development of Japan was gradually replaced by Japan-oriented education and the confrontation of science-oriented and ideologized regionological knowledge in the framework of historic-geographic sciences. Such bias eventually led to the policy and ideology of radical nationalism, including in the system of regionological knowledge management, which, in turn, later made Japan one of the main aggressors of World War II time. This period was painful for Korea, too: the processes of forming systematic regionological knowledge that had started since the end of XIX century were interrupted by the period of colonization by Japan (1910–1945) and the subsequent crisis in science and education.

2.3 The period of institutionalized regionological knowledge

This period in different countries is related to events of various importance and scale. The USA and Europe were a little ahead – there, Regional Science (1950-s) and Regional Studies (1960-s) formed. In the USSR an idea of creation of a new scientific direction started to arise in 1980-s and was fully realized in 1990-s, when a number of scientific schools and research lines started to develop, each under its own name. Among those, the most important were Regionology, Regionalistics and Region Studies. Science on regions in different countries was trying to find its path or borrow the vectors of development from other countries. In particular, regional science (W. Isard) focused on economic issues, region

research started to position itself as an interdisciplinary and multidisciplinary field; a region in the modern European paradigm is viewed as a unit of global competition and the subject of development, and the basic concepts are knowledge, development, and innovations. Russian schools started to develop on the bases of certain disciplines (Political science, Sociology, Economics etc.). China in the 1980-1990-s chose to implement Regional Science into its scientific sphere (the economic orientation of Regional Science best matched the demands of the state and the society for economic development), while Japan was actively developing regional research in a varied scope: cultural-historical, linguistic, political and economic issues. South Pacific Region Studies began to rapidly develop: firstly under the influence of former metropolises; then, in the connection with the strengthening of postcolonial conceptions, the implementation of original approaches to studying regional issues commenced.

It was exactly in that period when the world regionological knowledge divided: on the one hand, it tried to save its complexity, on the other hand – it was falling apart under the dictate of the disciplinary approach. At the same time, the «dictating» discipline formed in each of the regions depending on the existing system of knowledge management. In this way, in the liberal conditions of Western countries, socio-economic issues were put forward in accordance with the objective circumstances of the society's development, while in the authoritarian China they were given greatest importance in accordance with the strict governmental control and the government's orientation toward the development of socio-economic sphere. The high level of integration of scientific community in Japan has allowed regionological knowledge to become a complex and multidisciplinary field of research. Russia, where the issues of economic development have been eventually replaced by the foreign policy vector, has mainly concentrated its regionological knowledge in the framework of international relations theory.

This heterogeneity of knowledge management, conditioned by the regional specificity, has forced regionological knowledge in the XXI century to face a paradigm crisis, the response to which is transdisciplinarity.

3 The crisis of defining place of the transdisciplinary regionology among other sciences

The place of regionological knowledge among other sciences becomes a relevant issue immediately after this discipline gets an institutional status in a particular country or region. This is caused by several reasons: the extensive transdisciplinarity of the modern science, the young age of regionology as such, but above all, the lack of common position toward the issues of regionological knowledge management in different regions.

3.1 The approaches to defining the status of regionological knowledge

On the whole, the position of modern regionological knowledge is such that the arguments usually concern not the science of regions in general but rather its schools and research lines, each of which is interpreted in a certain way. The following approaches to defining the status of the scientific discipline that studies regions can be distinguished:

1) a subdiscipline to another science or a joint of (usually two or three) sciences, (for instance, World Complex Region Studies is interpreted by A. D. Voskresenskiy as one of the subject fields of International Relations or as fusion of International Relations and Area Studies);

2) an interdisciplinary field for cooperation among different scholars who are engaged in studying regional problems (such is the position of Regional Studies Association, and the same view is declared by the Science Council of Japan in their reports on regional research);

3) an independent science (in particular, W. Isard insists on this position concerning Regional Science).

Let us consider all the three approaches more closely.

3.1.1 Regionological knowledge as a subdiscipline

The first position – as a subdiscipline – is very common, since it protects regional knowledge from the attacks of those who approach scientific knowledge in a strictly disciplinary way. This is especially important in Russia, where the state knowledge management system includes a mandatory nomenclature of scientific disciplines, in which there is no regionology as a separate science. An example of a scientific school within the framework of this approach is World Complex Regional Studies of A.D. Voskresenskiy, which is defined as a research approach formed at the junction of the theory of international relations, comparative political science and area studies that focuses on the explanation of the interrelations of intrastate / intraregional processes, as well as on the study of the influence of peculiarities of intrastate / intraregional development on the global level [4].

3.1.2 Regional knowledge as an interdisciplinary field

The second approach is existence as an interdisciplinary field for cooperation of various scientists who are engaged in the study of regional problems – turns out to be important for those areas that need to maintain an integrated approach. This path allows regional knowledge to be on a par with other sciences, without descending to the level of a subdiscipline. In particular, Japanese regionologist Yamamoto Hiroyuki argues that the role of regional studies should not be relegated to a “subcontractor” performing work for monodisciplines. On the contrary, in his opinion, regional science goes one step ahead, studying non-standard manifestations of

regional life and thereby contributing to monodisciplinary research [5].

The same position is taken by the members of the subcommittee for the development of infrastructure for regional research of the Science Council of Japan, who propose to consider regional research as a coordinating centre designed to unite other sciences, when one of them is not sufficient for studying regional problems [6]. This approach to knowledge management does not imply the dictate of the state nomenclature, but makes the state and its scientific structures only one of the actors in the integral field of scientific knowledge.

3.1.3 Regional knowledge as an independent scientific discipline

The third approach – defending the status of an independent science – is the most daring one and causes heated discussions in the academic environment. Moreover, even in this case, the other two approaches enter the field of “independence”. In particular, W. Isard’s point of view regarding the position of Regional Science is based on what it can offer to all other disciplines, that is, it indicates both the connection with other branches and its interdisciplinarity. According to Isard, all sciences have a “unique key direction of specialization”, but this direction deprives these disciplines of certain important details that Regional Science can deal with. For example, economics does not attach significant importance to the processes associated with the impact of space and the physical environment on human behaviour and land use patterns, and geography excludes spatial theorizing, both static and dynamic. Sociology, like economics, ignores the physical environment and the spatial component, and political science practically does not consider the region as a living organism. Anthropology leaves out the interaction of regional economic, social and political systems. In other words, Isard’s Regional Science is good in that it can, for example, apply economic approaches to the study of geographic problems [7]. As can be seen from the given example, all three positions (subdiscipline, interdisciplinary field, independent science) in different proportions can be present in any direction: W. Isard, defending the independence of regional science, admits that it can be a place of intersection of other sciences, while he bases his theses on economy.

From the point of view of knowledge management, the position of promoting regional knowledge as an independent scientific discipline is the result of the efforts of individual scientists and their followers, which makes it difficult to consolidate its status. At the same time, using the example of W. Isard’s Regional Science, one can see how it claims to coordinate, that is, it wants to take a leading role in the field of regionological knowledge management.

3.2 Transdisciplinarity as a response to the crisis in determining the place of regional knowledge

All the three points of view on the place of regionological knowledge are fully justified in the disciplinary paradigm: in this case, it is required to clearly outline the boundaries of sciences, which is what representatives of all three approaches do, finding arguments in defence of their position. However, the controversy over the invisible frontier loses its ground in the transdisciplinary approach. This allows us to consider regionological knowledge as a scientific field of a different dimension: as knowledge passing through disciplines in search of the methods required for research and offering a new, unorthodox view of the object of study.

The closest to this concept is H. Yamamoto, who suggests that the absence of clear boundaries of the object of research, or rather the possibility of independently delineating them, as well as the general methodological freedom of regional research, allow them to take the place of a practice-oriented platform among other disciplines. In cases where a particular monodiscipline encounters regional specifics that cannot be investigated within an established disciplinary framework, the researcher enters the field of regional research, which is much freer in the choice of methodology and is able to respond more quickly to unexpected challenges. H. Yamamoto proposes to consider this as a dichotomy of “limited system knowledge” and “practice-oriented system knowledge”, where the transition between the first and the second in the study of regional problems will mean a transition between a specific monodiscipline and regional studies [8]. With one foot in the concept of disciplinarity, H. Yamamoto is still looking for “boundaries”, but the indication of methodological freedom, practice-orientedness and the ability to respond to non-standard challenges shows the closeness of this position to the transdisciplinary approach.

In this sense, transdisciplinary regionology as a science turns out not to be “under”, “between” or “next to” other sciences or their subdisciplines, but integrates scientific knowledge, being simultaneously within and parallel to each science. Moreover, due to its inherent complexity, it is at the forefront of this movement, and is the flagship of the transdisciplinary approach.

4 Conclusions

The regional specificity of knowledge management in the regionological field can be distinguished basing on at least two groundings.

The first, relating to earlier stages, is the civilizational difference between East and West. The attitude in the West towards proto-regionological knowledge in its early periods has a more universal character: it is intended to provide an understanding of the place in the processes of socio-economic and political development. Knowledge management processes in the East are more

influenced by the opposition “We – Others” paradigm and its proto-regionological rationale. For example, China saw itself in the system “Chinese knowledge (central) – barbaric knowledge (peripheral)”, Japan – in the triangle “Chinese knowledge – Japanese knowledge – European knowledge”, trying to increase its significance in this system with the help of proto-regionological knowledge.

The second grounding – the later one – is the dependence of regionological knowledge on the rigidity of the knowledge management system on the part of governmental structures. Substantial liberalization of Western countries made it possible for science to develop depending on public demand. The state can also participate in these processes with varying degrees of intensity. An example of a systemic approach on the part of the state is the period of Area Studies, i.e., regional knowledge focused on solving the problems of studying opponents / rivals, as well as interaction during the Cold War. In parallel with this, other directions, much more free, developed: Regional Science, Regional Studies. In Japan, the government still takes an active position in the field of regionological knowledge, but its efforts in the field of knowledge management are aimed not at the control, but at the coordination and creation of conditions for scientific development. Finally, Russia and China can serve as examples of strict knowledge management, where the high role of the state in the system of building up scientific knowledge is of great importance.

What is the place of transdisciplinarity in regionological knowledge management? Obviously, this is one of the promising vectors for the development of regionology, but a lot will depend not only on objective factors influencing the transdisciplinaryization of science, but also on the conscious efforts of the scientific community. The unification of disparate schools and directions into a single transdisciplinary field will help to streamline the system of regionological knowledge and increase the possibilities for effective knowledge management on the part of social institutions.

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